

CONSUMERS POWER COMPANY

DOCKET 50-255 - LICENSE DPR-20 - PALISADES PLANT

Request For Change To Technical Specifications

For the reasons hereinafter set forth, it is requested that the Technical Specifications contained in the Provisional Operating License DPR-20, Docket 50-255, issued to Consumers Power Company on October 16, 1972, for the Palisades Plant be changed as described below:

I. Description of Changes

- A. In Table 3.17.4 change item No. 8 to:

"Pressurizer Wide Range Water Level Indication."

Change "Minimum Operable Channels" to:

"2 (1, p, q)."

Change "Minimum Degree of Redundancy from "1" to "none".

- B. Add footnotes 1, p, and q. to Table 3.17.4 as follows:

"(1) The provisions of Specification 3.0.4 are not applicable.

(p) With one OPERABLE Pressurizer Wide Range Water Level Channel in lieu of the requirement of 3.17.2, restore the inoperable channel to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours.

(q) With no OPERABLE Pressurizer Wide Range Water Level Channels in lieu of the requirements of 3.17.2, either restore at least one of the inoperable channels to OPERABLE status within 48 hours, or be in at least HOT SHUTDOWN within the next 12 hours."

- C. In Table 4.1.3, Item Number 7. Change "Surveillance Method" table entry "A" from "Comparison of six independent level readings" to read "Comparison of two wide and two narrow range independent level readings."

- D. From the November 21, 1985 TSCR make the following changes:

In Table 3.25.1, Item Number 2 and in Table 4.20.1, Item Number 2. Change "(LI-0102E)" to "(LI-0102B)."

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E. Add the following paragraph to the Basis, Section 4.1:

"Since the wide and narrow range indicators are calibrated at different temperatures it is not appropriate to compare the wide range instruments with the narrow range. The shift comparison surveillance requirement, Table 4.1.3, item No. 7a., is intended to compare the two wide range indicators with each other and the two narrow range indicators with each other."

II. Discussion

The Changes proposed to Table 3.17.4 are consistent with those for accident monitoring instrumentation in Generic Letter 83-37 (Section 3.3.3.6). Editorial changes have been made to conform to the Palisades Technical Specification format.

Redundancy, as it applies to Table 3.17.4, is defined by Appendix A of the Technical Specification as, "The difference between the number of operable channels and the number of channels which when tripped will cause an automatic system trip." As the LT-0102/LT-0103 loops are used only to provide operator information, "none" is the appropriate entry for this table.

There are currently seven level indicators which provide control room pressurizer water level indication; LIC-0101A and B, LIA-0102A, LI-0102B, C, and D, and LI-0103A. Of these indicators, only LI-0103A receives its signal from an environmentally qualified transmitter. Regulatory Guide 1.97 requires two independent environmentally qualified wide range level indications. FC-731 will upgrade the LT-0102A loop to be an environmentally qualified wide range loop. Thus, LT-0102 and LT-0103 will provide the required, redundant qualified loops. The presence of these two instrument loops will provide more reliable indication than the unqualified LT-0102B, C and D loops which will be removed.

With the removal of LT-0102B, C and D and LI-0102B, C and D, LI-0102E becomes LI-0102B to maintain conformance with the plant instrument numbering convention. LIC-0101A, and B will continue to provide narrow range indication and control functions.

EXISTING CONDITIONS

Presently, the Class 1E, non-EQ LT-0102A, B, C and D, LI-0102A, B, C and D loops provide narrow range, hot calibrated (97.5 to 237.9 inches) level indication for the pressurizer (T-72). Additional indication is provided by the Class 1E, RG 1.97 Category 1, EQ loop wide range (0 to 260 inches), cold calibrated LT-0103, LI-0103A and B and the nonclass 1E narrow range, hot calibrated control loops LT-0101A and B, LRC-0101A and B.

RG 1.97 COMMITMENT

To provide a second channel (LT-0103, LI-0103A and B being the first) of wide range, cold calibrated pressurizer level meeting the RG 1.97 requirements.

RG 1.97 REQUIREMENTS

Pressurizer level is included as both a Type A and Type D variable. In both cases, the Category 1 design and qualification criteria are to be used.

TYPE A VARIABLES

Those variables to be monitored which provide the primary information required to permit the control room operator to take specific manual actions for which no automatic control is provided and that are required for safety systems to accomplish their safety functions for design basis accident events.

TYPE D VARIABLES

Those variables that provide information to indicate the operation of individual safety systems and other systems important to safety.

In general, Category 1 provides for full qualification, redundancy, and continuous real-time display and requires onsite (standby) power.

DESCRIPTION OF ITEM

The LT-0102A, LIA-0102A and E pressurizer level loop is being upgraded to a Category 1 loop. This will be accomplished by relocating, replacing, and renaming the transmitter inside containment, relocating and replacing the control room indicator, and providing a qualified source of loop power. The loop will be cold calibrated to the wide range of 0 to 260 inches. LT-0102A becomes LT-0102 and LI-0102E becomes LI-0102B. The LT-0102B, C and D and LI-0102B, C and D loops are being removed.

Analysis of No Significant Hazards Consideration

The upgrade of Loop LT-0102A to Category 1 and the removal of loops LT-0102B, C and D will not increase the probability of an accident previously evaluated in the FSAR; nor can it make possible the occurrence of an accident of a different type than any previously evaluated in the FSAR. The upgrade of the LT-0102A transmitter to that of an environmentally qualified device will provide a second independent instrument for post accident evaluation.

The consequences of an accident previously evaluated in the FSAR will not be increased as there will now be two environmentally qualified, independent loops of pressurizer level indication.

Instrument requirements for safe shutdown as discussed in FSAR, Section 7.4.1.8 are unchanged and are still met after the modification. Table 7-2 for the Primary Coolant System Wide Range Pressurizer Level calls for a level transmitter inside of containment, a level indicator in the control room, the C-33 panel and the C-150 panel. Currently, LT-0102A is in containment, LIA-0102A is in the control room and LI-0102E is on the C-150 panel. LT-0103 is in containment, LI-0103A is in the control room and LI-0103B is on the C-33 panel.

After the modification, LT-0102 will remain in containment, LIA-0102A will remain in the control room and LI-0102B will be on the C-150 panel. The LT-0103, LI-0103A and B loop remains unchanged. The removal of LT-0102B, C and D LI-0102B, C and D has no effect on the requirements of FSAR, Section 7.4.1.8.

The transmitter to control room indicator cable for LT-0102 goes through the 1C switchgear room. The control room to C-33 panel indicator cable for LT-0103 also goes through the 1C switchgear room. A fire in this common room may disrupt the LT-0102 signal to the control room, but would not disrupt the LT-0103 signal to the control room. The reason for this is as follows: The LI-0103B indicator in the C-33 panel is a voltage device. The transmitter current loop signal conditioning resistor for LI-0103B is in panel C-12 in the control room. If the cable is damaged resulting in a short, open, ground or hot-short, the LT-0103, LI-0103A portion of the loop would still be operable.

The LT-0102, LI-0102A and B loop will be powered by Y10. The LT-0103, LI-0103A and B loop is powered by Y20. After the modification, the LI-0102A and B indicators will fail to a zero indication as do the LI-0103A and B indicators. The Reg Guide 1.97 requirement for redundancy is met as any single failure would result in a zero reading from the affected loop. There is no ambiguity to the operator since it is obvious which loop has failed. Therefore, no additional level loops are required.

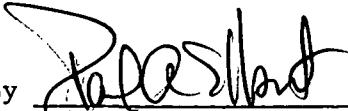
The margin of safety, as defined in the basis for any Technical Specification, will not be reduced as the LT-0102B, C and D transmitters are not included in the Basis Statement of any Technical Specifications.

III Conclusion

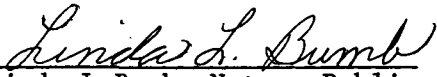
The Palisades Plant Review Committee has reviewed this Technical Specifications Change Request and has determined this change does not involve an unreviewed safety question and therefore involves no significant hazards consideration. This change has also been reviewed

under the cognizance of the Nuclear Safety Board. A copy of this Technical Specification Change Request has been sent to the State of Michigan official designated to receive such Amendments to the Operating License.

CONSUMERS POWER COMPANY

By 
Paul A Elbert, Vice President
Fossil and Hydro Operations

Sworn and subscribed to before me this 19th day of August 1988.


Linda L Bumb, Notary Public
Jackson County, Michigan
My commission expires September 16, 1989

